Division of Health Care Finance and Policy

Fiscal Year 1997

Inpatient Hospital Discharge Database Documentation Manual

March 1998

Division of Health Care Finance and Policy Two Boylston Street Boston, Massachusetts 02116-4704

http://www.mass.gov/dhcfp

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INTRODUCTION

This documentation manual consists of two sections:

- I. GENERAL DOCUMENTATION
- II. TECHNICAL DOCUMENTATION

The **General Documentation** for the Fiscal Year 1997 Hospital Case Mix & Charge Data Base includes background on database development and on the DRG Groupers included, and is intended to provide users with an understanding of the data quality issues connected with the data elements they may decide to examine. This document includes hospital-reported discrepancies received in response to the data verification process. Also included are supplements listing the hospitals within the database and information on mergers, name changes, and hospital closures.

Technical Documentation includes information on the fields calculated by the Division of Health Care Finance & Policy (DHCFP), and provides a data file contents summary which describes hospital data that is included in the two files (i.e., accepted data file and a cautionary use file). In addition, revenue code mappings and an alphabetical payer type list are included.

For your reference, the tape specifications listed following this section provide the necessary information to enable the user to access files on the 3480 cartridges.

TAPE SPECIFICATIONS

File 1:

DSN is RSC0C.FIPA0000.YEND97.V1.LEV_.ACCEPTED.DATA

- 1. 3480 Data Cartridge
- 2. Character Set is EBCDIC
- 3. Record length in bytes 1,939
- 4. Block length in bytes 23,268
- 5. Format is fixed block
- 6. Number of Records: 764,635

File 2:

DSN is RSC0C.FIPA0000.YEND97.V1.LEV_.CAUTION.DATA

- 1. 3480 Data Cartridge
- 2. Character Set is EBCDIC
- 3. Record length in bytes 1,939
- 4. Block length in bytes 23,268
- 5. Format is fixed block
- 6. Number of Records: 4,747

SECTION I. GENERAL DOCUMENTATION

PART A. BACKGROUND INFORMATION

- 1. General Documentation Overview
- 2. Development of the FY1997 Database
- 3. DRG Methodology

PART A. BACKGROUND INFORMATION

1. General Documentation Overview

The General Documentation consists of five parts.

Part A. BACKGROUND INFORMATION: Provides information on the development of the fiscal year 1997 database and the DRG methodology used. Six levels of the database exist; the information contained in each of the database levels is described in this section.

<u>Part B. DATA</u>: Describes the basic data quality standards as contained in 114.1 CMR 17.00 Requirement for the <u>Submission of Case Mix and Charge Data</u> (referred to as the 17.00 Regulation); some general data definitions, general data caveats, and information on specific data elements.

The case mix data plays a vital and growing role in health care research and analysis. To ensure the database is as accurate as possible, the DHCFP requires hospitals to verify their data. A standard Response Sheet is issued by the Division and is used by each hospital to certify the correctness of the data as it appears on the verification report, or to certify that the hospital found discrepancies in the data. If a hospital finds data discrepancies, then the DHCFP requests the hospital submit written corrections that provide an accurate profile of the hospital's fiscal year 1997 discharges. Part C of the documentation displays hospital response sheets.

<u>Part C. HOSPITAL RESPONSES</u>: Details hospitals' responses received as a result of the data verification process. From this section users can also learn which hospitals did not verify their data. This section contains the following lists and charts.

- 1. Summary of Hospitals' Verification Report Responses
- 2. Summary of Reported Discrepancies by Category of Reported Data Errors.
- 3. Data Discrepancies and Correction Responses Received from Hospitals
- 4. Hospitals with Special Circumstances

Part D. CAUTIONARY USE DATA FILE: Lists hospitals for which DHCFP does not have four (4) quarters of acceptable data, as specified under Regulation 114.1 CMR 17.00.

In Fiscal Year 1997, two hospitals did not meet the requirement of the 17.00 Regulation for all four quarters.

<u>Part E. HOSPITALS WITH NO DATA SUBMISSION</u>: Lists those hospitals which failed to provide any fiscal year 1997 data to the DHCFP.

Part F. SUPPLEMENTS: Provides Supplements I through IV listed in the Table of Contents.

PART A. BACKGROUND INFORMATION

2. Development of the 1997 Database

The Division of Health Care Finance & Policy continued its efforts this year to improve the processing and accuracy of case mix data. All staff involved with the processing and management of the database meet frequently to discuss and, in most cases, resolve the host of issues that inevitably arise. Additional staff was added to the project in order that the Division could respond to hospitals with needed technical assistance and to ensure that the processing of the data was done expeditiously. The Division also continued the practice of providing hospitals with an opportunity to verify data at mid-year.

Six Fiscal Year 1997 database levels have been created to correspond to the levels set forth in proposed Regulation 114.5 CMR 2.00. Higher levels contain an increasing number of the data elements which are defined as "Deniable Data Elements" in Regulation 114.5 CMR 2.00. The deniable data elements are medical record number, billing number, claim certificate number (Medicaid Recipient Identification Number), unique health identification number (UHIN), date of admission, date of discharge, date of birth, date(s) of surgery, and unique physician number (UPN). A description of these levels follows:

| LEVEL I | Contains all case mix data elements, except the deniable data elements. |
|-----------|--|
| LEVEL II | Contains all Level I data elements, plus the UPN. |
| LEVEL III | Contains all Level I data elements, plus the UHIN, an admission sequence number for each UHIN record, and a calculation of the number of days between inpatient stays for each UHIN record. |
| LEVEL IV | Contains all Level I data elements, plus the UPN, the UHIN, an admission sequence number for each UHIN record, and a calculation of the number of days between inpatient stays for each UHIN record. |
| LEVEL V | Contains all Level IV data elements, plus the date of admission, date of discharge, and the date(s) of surgery. |
| LEVEL VI | Contains all of the case mix data including deniable data elements except the patient identifier component of the claim certificate number. |

PART A. BACKGROUND INFORMATION 3. DRG GROUPERS

All Patient DRG Groupers (Version 8.1 & Version 12.0) & All-Patient Refined DRG Grouper (Version 12.0)

Users should note that the New Jersey Version II Grouper was used to classify discharges into Diagnostic Related Groups (DRGs) prior to October 1991.

Beginning in October 1991, the DHCFP began using the All-Patient Grouper Version 8.1 (mainframe) to classify all patient discharges for hospital's profiles of discharges and for the yearly database. This change in grouping methodology was made because the All-Patient DRG better represents the general population and provides improvements in areas such as newborns and the HIV population. Both the AP-DRG Version 8.1 Grouper and the AP-DRG Version 12.0 grouper have been included on the fiscal year 1996 database. The purpose of Providing two groupers on the database is to offer a more current grouper, (AP-DRG 12.0) while allowing consistency for previously released data bases which contain the AP-V8.1. (Please note that hospitals were reviewed for verification using both the AP-V8.1 and V12.0 Groupers.)

The Version 8.1 All Patient-DRG methodology is not totally congruent with the ICD-9-CM procedure and diagnosis codes in effect for this fiscal year 1997. Therefore, it was necessary to convert some ICD-9-CM codes to those acceptable to the AP-DRG 8.1 grouper. The MRSC mapped the applicable ICD-9-CM codes into a clinically representative code using the historical mapper utility provided by 3M Health Information Systems. This conversion is done internally for the purpose of DRG assignment and for reimbursement, and in no way alters the original ICD-9-CM codes that appear on the database. These codes remain on the database as they were reported by the hospital.

There are several birth weight options within the 3M Grouper software for determining newborn DRG assignment. Option 5, which determines the newborn DRGG by inferring birth weight from the ICD-9 code is used as the birth weight option in both implementations of groupers V8.1 and V12.0.

DRGs and the Verification Report Process

The hospitals' profile of discharges, grouped by AP-DRG 8.1 and by the AP-DRG 12.0 is part of the verification report, and it is this grouped profile on which the hospitals commented. The Division urged hospitals to use the All-Patient-DRG Grouper with same system specifications as used by the DHCFP.

PART A. BACKGROUND INFORMATION 3. DRG GROUPERS

All Patient DRG Groupers (Version 8.1 & Version 12.0) & All-Patient Refined DRG Grouper (Version 12.0)

All Patient Refined Grouper (3M APR-DRG 12.0)

This year the All Patient Refined DRGs have been added to the Hospital Case Mix & Charge Data Base. The All Patient Refined DRGs (3M APR-DRG 12.0) are a severity/risk adjusted classification system that provide a more effective means of adjusting for patient differences.

The 3M APR-DRGs expand the basic DRG structure by adding four subclasses to each DRG. The addition of the four subclasses address patient differences relating to severity of illness and risk of mortality. Severity of illness relates to the extent of physiologic decompensation or organ system loss of function experience by the patient, while risk of mortality relates to the likelihood of dying. For example, a patient with acute cholecystitis as the only secondary diagnosis is considered a major severity of illness but a minor risk of mortality. The severity of illness is major since there is significant organ system loss of function associated with acute cholecystitis. However, it is unlikely that the acute cholecystitis alone will result in patient mortality and thus, the risk of mortality for this patient is minor. If additional diagnoses are present along with the acute cholecystitis, patient severity of illness and risk of mortality may increase. For example, if peritonitis is present along with the acute cholecystitis, the patient is considered an extreme severity of illness and a major risk of mortality. Since severity of illness and risk of mortality are distinct patient attributes, separate subclasses are assigned to a patient for severity of illness and risk of mortality. Thus, in the APR-DRG system, a patient is assigned three distinct descriptors:

- The base APR-DRG (e.g., APR-DRG 127 Congestive Heart Failure or APR-DRG 302 Kidney Transplant)
- The severity of illness subclass
- The risk of mortality subclass

PART A. BACKGROUND INFORMATION 3. DRG GROUPERS

All Patient DRG Groupers (Version 8.1 & Version 12.0) & All-Patient Refined DRG Grouper (Version 12.0)

The four severity of illness subclasses and the four risk of mortality subclasses are numbered sequentially from 1 to 4 indicating respectively, minor, moderate, major, or extreme severity of illness or risk of mortality.

The Fiscal Year 1997 Case Mix & Charge Data Base contains the **APR – DRG 12.0**, **the APR MDC 12.0**, **the severity subclass**, **and mortality subclass**. For applications such as evaluating resource use or establishing patient care guidelines, the 3M APR-DRGs in conjunction with severity of illness subclass is used. The severity subclass data can be found in the Division's record layout in the variable named "APR – V12 Severity Level" at position number 1938. For evaluating patient mortality, the 3M APR-DRG in conjunction with the risk of mortality subclass is used. The mortality subclass data can be found in the Division's record layout in the variable named "APR-V12 Mortality Level" at position number 1939.

Please note that the Division maintains listings of the DRG numbers and associated descriptions for the three DRG groupers included in this database. These are available upon request.

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¹ Massachusetts specific cost weights were developed for the All Patient Refined DRG Grouper (Version 12.0) and may be utilized with the information contained in this data base.

PART B. DATA

- 1. Data Quality Standards
- 2. General Definitions
- 3. General Data Caveats
- 4. Specific Data Elements
- 5. Special DHCFP Data Element Review

PART B. DATA 1. Data Quality Standards

Fiscal Year 1997 merged case mix and charge data was submitted 75 days after the close of each quarter. The data was then edited using the Integrated Data Demonstration (IDD) software, as modified by DHCFP. Required data elements and corresponding edits are specified in 114.1 CMR 17.00: Requirement for the Submission of Hospital Case Mix and Charge Data.

The quarterly data is edited for compliance with regulatory requirements using a one percent error rate specified in Regulation 114.1 CMR 17.00. The one percent error rate is based on the presence of Type A and Type B errors as follows:

- Type A: One error per discharge caused rejection of the discharge.
- Type B: Two errors per discharge caused rejection of the discharge.

If more than one percent of the discharges are rejected, then the entire tape submission is rejected by the DHCFP. These edits primarily check for valid codes, correct formatting, and presence of required data elements. Please see Supplement I for a listing of data elements categorized by error type.

Each hospital receives a quarterly error report displaying invalid discharge information. Quarterly data which does not meet the one percent compliance standard must be resubmitted by the individual hospital until the standard is met. All but two hospitals met this one percent error rate standard for all four quarters of fiscal year 1997. (Data for the two hospitals which did not meet the one percent error rate is contained in the Cautionary Use File.)

Verification Report Process

The yearly case mix and charge data Verification Project is intended to present hospitals with a profile of their individual data as retained by the Division. The purpose of this project is to function as a quality control measure for hospitals to review the data they have provided to the DHCFP. The Verification Report itself is a series of frequency reports covering selected data elements including the number of discharges, amount of charges by accommodation and ancillary center, and listing of Diagnostic Related Groups (DRGs). Please refer to Supplement II for a description of the Verification Report contents.

PART B. DATA 1. Data Quality Standards

Hospitals have the opportunity to review their data twice a year. After a hospital has successfully submitted the first two quarters of data, a mid-year verification report is produced for the hospital's review. Hospitals are strongly encouraged to review the interim report for inaccuracies and make corrections so that subsequent quarters of data will be accurate. At mid-year, hospitals can opt to provide a written explanation of any discrepancies found.

A Year-End Verification Report is produced after four quarters of data have passed the required edits. At this point, hospitals are asked to certify the accuracy of their data by completing the Verification Report Response Form.

The Verification Report Response Form allows for two types of responses as follows:

"A" Response: By checking this category, a hospital indicates its agreement that the data appearing on the Verification Report is accurate and that it represents the hospital's case mix profile.

"B" Response: By checking this category, a hospital indicates that the data on the report is accurate except for the discrepancies noted.

If any discrepancies exist at year end, (i.e., a 'B' response), DHCFP requests that hospitals provide a written explanation of the discrepancies to be included in the General Documentation Manual.

PART B. DATA 2. General Definitions

Before turning to an examination of specific data elements, several basic data definitions (as contained in 114.1 CMR 17.00: Requirement for the Submission of Hospital Case Mix and Charge Data) should be noted.

Case Mix Data:

Case specific, discharge data which includes both clinical data, such as medical reason for admission, treatment, and services provided to the patient, and duration and status of the patient's stay in the hospital; and socio-demographic data, such as expected payor, sex, race, and patient zip code.

Charge Data

The full, undiscounted total and service specific charges billed by the hospital to the general public.

Ancillary Services

The service and their definitions as specified in the Commonwealth of Massachusetts **Hospital Uniform Reporting Manual** (HURM). [And as specified by the reporting codes and mapping scheme as listed in 114.1 CMR 17.06 (2) (c)]

Routine Services

The services and their definitions as specified in HURM s.3241, promulgated under 114.1 CMR 4.00. Reporting codes are defined in 114.1 CMR 17.06(2)(a) and include medical / surgical, obstetrics, and pediatrics.

Special Care Units

The units which provide patient care of a more intensive nature than provided to the usual medical, obstetric, or pediatric patient. These units are staffed with specially trained nursing personnel and contain monitoring and specialized support equipment for patients who require intense, comprehensive care.

Leave of Absence Days

The count in days of a patient's absence, with physician approval, during a hospital stay without formal discharge and readmission to the facility.

PART B. DATA 3. General Data Caveats

The following general caveats stem from information gathered through conversations with members of the Division of Health Care Finance & Policy Case Mix Data Advisory Group, staff at the Massachusetts Hospital Association, staff at the Massachusetts Health Data Consortium (MHDC), and the numerous and various admitting, medical record, financial, administrative, and data processing personnel who call to comment upon the Division's procedural requirements.

Information may not be entirely consistent from hospital to hospital due to differences in:

- Collection and verification of patient supplied information before or at admission;
- Medical record coding, consistency, and completeness;
- Extent of hospital data processing capabilities;
- Flexibility of hospital data processing systems;
- Varying degrees of commitment to quality of merged case mix and charge data;
- Capacity of financial processing system to record late occurring charges on the Division of Health Care Finance & Policy Tape;
- Non-comparability of data collection and reporting.

Case Mix Data

In general terms, the <u>case mix data</u>, is derived from patient discharge summaries which can be traced to information gathered upon admission of from information entered by admitting and attending physicians into the medical record. The quality of case mix data is dependent upon hospital data collection policies and coding practices of the medical staff, as well as the DRG optimizing software used by the hospital.

Charge Data

Issues to consider with the <u>charge data</u>: A few hospitals do not have the capacity to add late occurring charges to the Rate Setting Commission tape within the current timeframes for submitting data. In some hospitals, "days billed" or "accommodation charges" do not equal the length of stay or the days that the patient spent in the hospital. One should note that charges are a reflection of hospital pricing strategy and may not be indicative of the cost of patient care delivery.

Expanded Data Elements

Care should also be used when examining <u>data elements that have been expanded</u> especially when analyzing multi-year trends. In order to maintain consistency across years, it may be necessary to merge some of the expended codes. For example, the Patient Disposition codes were expanded as of January 1, 1994 to include a new code for "Discharged/Transferred to a Rehab Hospital". Prior to this quarter, these discharges would have been reported under the code "Discharged/transferred to a chronic or rehab hospital" which itself was changed to "Discharged/transferred to chronic hospital". If performing an examination of these codes across years, one will need to combine the "rehab" and "chronic" codes in the data beginning January 1, 1994.

PART B. DATA 4. Specific Data Elements

The purpose of the following section is to provide the user with explanations of some data elements included in the 17.00 Regulation and to give a sense of their reliability.

A. Existing Data Elements

DPH Hospital ID Number

The Massachusetts Department of Public Health four digit number. (See Attachment IV.)

Patient Race

Due to misconceptions regarding the collection of race information, the Rate Setting Commission worked with the Massachusetts Commission Against Discrimination. The result was the mailing of a statement from the Massachusetts Commission Against Discrimination to all hospital administrators. This statement explained that asking for race information was voluntary and was not a form of discrimination.

The accuracy of the reporting of this data element for a given hospital is difficult to ascertain; therefore the user should be aware that the distribution of patients for this data element may not represent an accurate grouping of a given hospital's population.

Leave of Absence (LOA) Days

Hospitals are required to report these days to the Commission if they are used. At present, the Commission is unable to verify the use of these days if they are not reported nor can the Commission verify the number reported if a hospital does provide the information. Therefore, the user should be aware that the validity of this category relies solely on the accuracy of a given hospital's reporting practices.

Unique Health Identification Number (UHIN)

The patient's encrypted social security number.

Principal External Cause of Injury Code

The ICD-9 code which categorizes the event and condition describing the principal external cause of injuries, poisonings, and adverse effects.

Unique Physician Number (UPN)

The encrypted Massachusetts Board of Registration in Medicine license number for the attending and operating physician.

Payor Codes

In 1994, payor information was been expanded to include payor type and payor source. Payor type is the general payor category such as HMO, Commercial, or Worker's Compensation. Payor Source is the specific health care coverage plan such as Harvard Community Health Plan or Aetna Life Insurance.

PART B. DATA 4. Specific Data Elements - *Continued*

Source of Admission

Three new sources have been added: ambulatory surgery, observation, and extramural birth (for newborns).

Patient Disposition

Four new discharge/transfer categories were added in January 1994 as follows:

- 1) to another type of institution for inpatient care or referred for outpatient services to another institution;
- 2) to home under care of a Home IV Drug Therapy Provider;
- 3) to rehab hospital;
- 4) to rest home.

Accommodation and Ancillary Revenue Codes

These codes have been expanded to coincide with the current UB-92 Revenue Codes.

PART B. DATA 4. Specific Data Elements - *Continued*

B. DHCFP Calculated Fields

Admission Sequence Number

This calculated field indicates the chronological order of admissions for patients with multiple inpatient stays. A match with the UHIN only, is used to make the determination that a patient has had multiple stays. (Please read the comments below.)

Days Between UHIN Stays

This calculated field indicates the number of days between each discharge and each consecutive admission for applicable patients. Again, a match with the UHIN, only, is used to make the determination that a patient has been readmitted. (Please read the comments below.)

The DHCFP has done some analyses of the UHIN data and in the process, has discovered problems with some of the reported data. For a few hospitals, no UHIN data exists as these hospitals failed to report patients' social security numbers (SSN). Other hospitals reported the same SSN repeatedly resulting in up to 83 admissions for one UHIN in one instance. In other cases the demographic information (age, sex, etc.) was not consistent when a match did exist with the UHIN. Some explanations for this include assignment of a mother's SSN to her infant or assignment of a spouse's SSN to a patient. This demographic analysis shows a probable error rate in the range of 2%-10%.

On average, the DHCFP found that 91% of the SSN's submitted are valid when edited for compliance with rules issued by the Social Security Administration. Staff continually monitors the encryption process to ensure that duplicate UHINs are not inappropriately generated and that recurring SSN's consistently encrypt to the same UHIN. Only valid SSN's are encrypted to a UHIN; invalid SSN's are set to "------".

Based on these findings, the DHCFP strongly suggests that users perform some qualitative checks of the data prior to drawing conclusions about that data.

PART B. DATA 5. Special DHCFP Data Element Review

E-Codes

Many hospitals and injury prevention professionals have expressed an interest in the quality of hospital E-Code reporting to the Division since it has a direct impact on injury prevention professionals' ability to carry out research, planning, and evaluation. State agencies such as the Department of Public Health (DPH) rely heavily on the E-Code Case Mix Data for statewide injury prevention activities. E-Codes, stating how and where the patient's injury occurred, are essential to ensure a total patient profile, thus allowing quality research and development of injury prevention programs in Massachusetts.

This year the Division accomplished review of hospital's reported Case Mix E-Code data in a joint effort with the Department of Public Health. As you know, the Division of Health Care Finance & Policy (DHCFP) required Case Mix Data reporting of the Principal External Cause of Injury code (E-Code) in January 1994. This review encompasses the first full fiscal year (FY95) of Case Mix data since the E-Code mandate was implemented. We are happy to share the results of this information with you.

It is truly noteworthy that within one year after the mandate went into effect, nearly all hospitals provided E-Codes in over 97% of hospitalizations where injury was the principal diagnosis. The statewide rates in 1995 were double the rate from 1993 (49%), the year prior to the E-Code mandate. The statewide E-Code rate for fiscal year 1995 was 97.6%. Because the basis of effective injury prevention is accurate data, we will look forward to hospitals attaining a statewide goal of 100% E-coding for all injuries in the future.

We thank hospitals and their staff for diligent efforts to report E-coded data.

Payer Source Codes

This year the Division of Health Care Finance and Policy also accomplished a comprehensive study focusing on analysis of the source of payment reported in the hospital case mix data. The Division initiated this study in response to the strong interest of many hospitals and DHCFP Case Mix data users in receiving feedback on the quality

PART B. DATA 5. Special DHCFP Data Element Review

Payer Source Codes - Continued

and reliability of the reported data for this newly added source of payment field. The source of payment was added to DHCFP Case Mix Data in 1994 expanding the level of payer detail captured from the general 'payer type' to the specific insurer plan. Accuracy for this study was measured by comparing the reported DHCFP Case Mix payer source data to the most current available claims information from participating insurers, including Fallon, Harvard, DMA (Medicaid).

Hospitals' diligent efforts concerning quality reporting of payer source information were evident. The Case Mix Payer Validation Project's findings demonstrated substantial accuracy and consistent precision in reporting of the case mix payer source for payers under study. Overall the reported case mix payer source data proved to be quite accurate.

The overwhelming majority of case mix payer source discharges for participating insurers were either precisely reported with the specific payer's exact payer source, or were not precise but were accurately identified with the specific payer. And only 2% (on average) could not be associated with the participating payers because they were too general. These 'general' payer sources were largely composed discharges reported using catch-all payer sources such as "other" or "Medicare HMO" versus the specific plan name.

Most of these cases that were not precise but were accurately identified entailed hospital's reporting the payer's most common plan or HMO instead of the actual plan or by using the Primary and Secondary Payer sources. For example, regular Fallon HMO was reported instead of Fallon's Senior Plan. And, Medicaid Managed Care patients were reported as having regular Medicaid, or had the private carrier recorded as the primary payer source and Medicaid as the Secondary payer source. Instead, the precise Medicaid Managed Care payer source codes (codes 104-118) should have been reported.

Some of the imprecisely reported payer sources and use of the "other" categories were a result of the unavailability of specific payer sources used for hospital reporting, in particular for new insurer plans. As a direct result of the analysis, payer codes were extensively revised and expanded. We expect that the payer source data should become even more accurate with hospital use of the new payer code choices, effective for hospital reporting beginning in October 1997.

PART C. HOSPITAL RESPONSES

- 1. Summary of Hospitals' Verification Report Responses
- 2. Summary of Reported Discrepancies by Category
- 3. Data Discrepancies and Correction Responses Received from Hospitals
- 4. Hospitals with Special Circumstances

PART C. HOSPITAL RESPONSES

1. Summary of Hospitals' Verification Report Responses

| ID | Hospital Name | 'A' | 'B' | None | Comments |
|------|--------------------------|------------|------------|------|----------------------|
| 2006 | Anna Jaques | | | X | |
| 2226 | Athol Memorial | X | | | |
| 2073 | Atlanticare Medical Ctr. | X | | | |
| 2339 | Baystate Medical Center | | | X | |
| 2313 | Berkshire Medical Ctr. – | X | | | |
| | Berkshire Campus | | | | |
| 2231 | Berkshire Medical Ctr. – | X | | | |
| | Hillcrest Campus | | | | |
| 2069 | Beth Israel Deaconess | X | | | See hospital |
| | Med. Ctr. – East Campus | | | | letter |
| 2092 | Beth Israel Deaconess | | | X | |
| | Med. Ctr. – West Campus | | | | |
| 2307 | Boston Medical Ctr-BCH | | | X | |
| 2084 | Boston Medical Center – | | | X | |
| | University | | | | |
| 2060 | Boston Reg. Med. Ctr. | X | | | |
| 2921 | Brigham & Women's | X | | | |
| 2118 | Brockton Hospital | X | | | |
| 2108 | Cambridge Public Health | | | X | |
| | Commission – | | | | |
| | Cambridge Hospital | | | | |
| 2001 | Cambridge Public Health | | | X | |
| | Commission – Somerville | | | | |
| 2135 | Cape Cod Health | | | X | |
| | Systems – Cape Cod | | | | |
| 2289 | Cape Cod – Falmouth | | | X | Cautionary Use File |
| 2003 | Carney Hospital | X | | | |
| 2139 | Children's Medical Ctr. | | | X | |
| 2126 | Clinton Hospital | X | | | |
| 2020 | Columbia MetroWest | | | X | |
| 2155 | Cooley Dickinson | X | | | |
| 2335 | Dana Farber | X | | | |
| 2054 | Deaconess-Glover | | | X | |
| 2298 | Deaconess-Nashoba | X | | | |
| 2067 | Deaconess-Waltham | X | | | |
| 2018 | Emerson Hospital | | | X | |
| 2052 | Fairview Hospital | X | | | |
| 2048 | Faulkner Hospital | | X | | Explanation received |
| 2120 | Franklin Medical | | X | | |

PART C. HOSPITAL RESPONSES

1. Summary of Hospitals' Verification Report Responses

| DPH# | Hospital Name | 'A' | 'B' | None | Comments |
|------|--------------------------------|------------|------------|------|----------|
| 2101 | Good Samaritan Med. | X | | | |
| | Center | | | | |
| 2143 | Harrington Hospital | X | | | |
| 2131 | Haverhill Hospital | | | X | |
| 2034 | Health Alliance – | | | X | |
| | Burbank Campus | | | | |
| 2127 | Health Alliance – | | | X | |
| | Leominster Campus | | | | |
| 2036 | Heywood Hospital | | | X | |
| 2225 | Holy Family | X | | | |
| 2145 | Holyoke | X | | | |
| 2157 | Hubbard Regional | X | | | |
| 2082 | Jordan | | | X | |
| 2033 | Lahey Hitchcock Clinic | | | X | |
| 2099 | Lawrence General | X | | | |
| 2038 | Lawrence Memorial | X | | | |
| 2040 | Lowell General | X | | | |
| 2041 | Malden | X | | | |
| 2103 | Marlborough | X | | | |
| 2042 | Martha's Vineyard | | | X | |
| 2148 | Mary Lane | X | | | |
| 2167 | Mass. Eye & Ear | | | X | |
| 2168 | Mass. General | | X | | |
| 2089 | Med. Ctr. At Symmes | | | X | |
| 2058 | Melrose Wakefield – Melrose | X | | | |
| 2046 | Melrose Wakefield – Whidden | X | | | |
| 2077 | Memorial Health Care | X | | | |
| 2149 | Mercy Hospital | X | | | |
| 2105 | Milford-Whitinsville | 71 | | X | |
| 2227 | Milton Hospital | | | X | |
| 2022 | Morton | X | | 21 | |
| 2071 | Mt. Auburn | X | | | |
| 2044 | Nantucket Cottage | 7.1 | | X | |
| 2059 | N. E. Baptist | | | X | |
| 2299 | N.E. Medical Center | | | X | |
| 2075 | Newton-Wellesley | X | | 11 | |
| 2076 | Noble | 11 | X | | |

PART C. HOSPITAL RESPONSES

1. Summary of Hospitals' Verification Report Responses

| DPH# | Hospital Name | 'A' | 'B' | None | Comments |
|------|-------------------------|------------|------------|------|----------------------|
| 2061 | North Adams Regional | X | | | |
| 2007 | Northeast Health Syst. | | | X | |
| 2114 | Norwood Hospital | X | | | |
| 2150 | Providence | X | | | |
| 2151 | Quincy | | | X | |
| 2063 | Saints Memorial Med. | | | X | |
| | Ctr. | | | | |
| 2014 | Salem Hospital | | X | | Explanation received |
| 2337 | Southcoast – Charlton | X | | | |
| 2010 | Southcoast – St. Luke's | X | | | |
| 2106 | Southcoast – Tobey | | | X | |
| 2107 | South Shore Hospital | X | | | |
| 2856 | Southwood Community | | | X | |
| 2011 | St. Anne's | | | X | |
| 2085 | St. Elizabeth's | | X | | Explanation received |
| 2128 | St. Vincent | X | | | |
| 2100 | Sturdy Memorial | | | X | |
| 2841 | UMass. Med. Center | X | | | |
| 2091 | Vencor – Boston | | | X | |
| 2171 | Vencor – North Shore | | | X | Cautionary Use File |
| 2094 | Winchester | | X | | Explanation received |
| 2181 | Wing Memorial | X | | | |

PART C. HOSPITAL RESPONSES

2. Summary of Reported Discrepancies by Category

LIST OF ERROR CATEGORIES

- Type of Admission
- Source of Admission
- Age
- Sex
- Race
- Payer
- Length of Stay
- Disposition
- Number of Diagnosis Codes Used Per Patient
- Month of Discharge
- DRGs
- Number of Procedure Codes Used Per Patient
- Accommodation Charges
- Ancillary Charges
- Top 20 Principle ECODES
- Top 20 DRGs/Rank Order
- Number of Discharges
- Top 20 MDCs/Rank Order

PART C. HOSPITAL RESPONSES

2. Summary of Reported Discrepancies by Category

| Hospital | Type of Admission | Source of Admission | Age | Sex | Race | Payer |
|-------------------|----------------------|---------------------|-----|-----|------|-------|
| Faulkner Hospital | | X | X | X | X | X |
| Franklin Medical | | X | | | | |
| Center | | | | | | |
| Noble Hospital | | | | | | X |

| Hospital | Length of | Disposition | # | Month of | DRGs | # |
|-------------------|-----------|-------------|-------|-----------|------|-------|
| | Stay | | Diag. | Discharge | | Proc. |
| | | | Codes | | | Codes |
| Faulkner Hospital | X | X | X | | X | |
| Mass. General | | | | | X | |
| St. Elizabeth's | | | | | X | |

PART C. HOSPITAL RESPONSES

2. Summary of Reported Discrepancies by Category

| Hospital | Accommodation | Ancillary | Top 20 | Top 20 | # of | Top 20 |
|-------------|---------------|-----------|---------------|---------------|------------|--------|
| | Charges | Charges | ECodes | DRGs | Discharges | MDCs |
| Faulkner | | | X | X | | X |
| Hospital | | | | | | |
| Franklin | | | X | X | | X |
| Medical | | | | | | |
| Center | | | | | | |
| Noble | | X | | | | |
| Hospital | | | | | | |
| North Shore | | | | | X | |
| Med. Ctr | | | | | | |
| Salem | | | | | | |
| Winchester | | | | | X | |

PART C. HOSPITAL RESPONSES

3. <u>Data Discrepancies and Correction Responses Received from Hospitals</u>

Hospital Index

| <u>Hospital</u> | <u>Page</u> |
|--|-------------|
| Faulkner Hospital | 27 |
| Massachusetts General Hospital | 32 |
| North Shore Med. Ctr. – Salem Hospital | 33 |
| St. Elizabeth's Medical Center | 34 |
| Winchester Hospital | 35 |

PART C. HOSPITAL RESPONSES

3. <u>Data Discrepancies and Correction Responses Received from Hospitals</u>

FAULKNER HOSPITAL

Faulkner Hospital reported discrepancies in the following categories:

Source of Admission Disposition

Age # of Diagnosis Codes Per Patient

Sex DRGs

Race Top 20 Principal E-Codes
Payer Top 20 DRGs/Rank Order
Length of Stay Top 20 MDCs/Rank Order

| FAULKNER HOSPITAL | | | | | |
|-------------------------|------------|----------------------|--|--|--|
| Category | DHCFP DATA | Hospital Corrections | | | |
| | | | | | |
| Admit Source | | | | | |
| Observation | 458 | 457 | | | |
| Transfer Acute Hospital | 4 | 5 | | | |
| Age Categories | | | | | |
| 75-84 | 1294 | 1293 | | | |
| = / > 85 | 789 | 790 | | | |
| Patient Sex | | | | | |
| Female | 3202 | 3201 | | | |
| Male | 2725 | 2726 | | | |
| Patient Race | | | | | |
| White | 5270 | 5276 | | | |
| Black | 361 | 364 | | | |
| Unknown | 127 | 117 | | | |
| American Indian | 2 | 1 | | | |
| Hispanic | 106 | 108 | | | |

| FAULKNER HOSPITAL | | | | | |
|----------------------------|------------|-----------------------------|--|--|--|
| Category | DHCFP DATA | Hospital Corrections | | | |
| | | | | | |
| Payor | | | | | |
| Self Pay | 95 | 87 | | | |
| Workers Comp | 22 | 21 | | | |
| Medicare | 2743 | 2745 | | | |
| Medicaid | 162 | 213 | | | |
| Blue Cross | 294 | 297 | | | |
| Commercial Insurance | 271 | 348 | | | |
| HMO | 1400 | 1389 | | | |
| Free Care | 206 | 213 | | | |
| Medicaid Managed Care | 52 | 2 | | | |
| BX Managed Care | 113 | 108 | | | |
| PPO&Other Managed Care | 126 | 61 | | | |
| Length of Stay | | | | | |
| 2 Days | 952 | 951 | | | |
| 5 Days | 582 | 583 | | | |
| 11-19 Days | 436 | 435 | | | |
| >= 20 Days | 172 | 173 | | | |
| • | | | | | |
| Patient Disposition | | | | | |
| Home | 2946 | 2945 | | | |
| Acute Care | 293 | 294 | | | |
| Number of Diagnosis | | | | | |
| Codes per Patient | | | | | |
| 1 Diagnosis | 366 | 365 | | | |
| 2 Diagnoses | 719 | 715 | | | |
| 3 Diagnoses | 760 | 759 | | | |
| 4 Diagnoses | 702 | 700 | | | |
| 5 Diagnoses | 664 | 662 | | | |
| 6 Diagnoses | 613 | 612 | | | |
| 7 Diagnoses | 542 | 547 | | | |
| 8 Diagnoses | 466 | 460 | | | |
| 9 Diagnoses | 1095 | 1107 | | | |

| FAULKNER HOSPITAL | | |
|--------------------------|------------|----------------------|
| Category | DHCFP DATA | Hospital Corrections |
| DRG Listing (AP V8.1) | | |
| DRG 14 | 90 | 89 |
| 15 | 40 | 41 |
| 75 | 20 | 21 |
| 90 | 22 | 23 |
| 122 | 47 | 48 |
| 124 | 41 | 42 |
| 128 | 4 | 7 |
| 130 | 33 | 31 |
| 131 | 17 | 16 |
| 132 | 151 | 150 |
| 140 | 29 | 28 |
| 143 | 79 | 80 |
| 174 | 35 | 34 |
| 182 | 89 | 88 |
| 183 | 57 | 58 |
| 217 | 5 | 4 |
| 259 | 4 | 5 |
| 263 | 15 | 14 |
| 320 | 46 | 45 |
| 424 | 1 | 0 |
| 452 | 8 | 94 |
| 468 | 17 | 18 |
| 478 | 24 | 23 |
| 479 | 3 | 4 |
| 531 | 2 | 5 |
| 538 | 11 | 10 |
| 550 | 9 | 10 |
| 551 | 10 | 11 |
| 552 | 35 | 36 |
| 558 | 28 | 29 |
| 564 | 7 | 8 |
| 567 | 8 | 9 |
| 999 | 9 | 0 |
| Top 20 Principal E-Codes | | |
| E8788 | 296 | 287 |
| 888 | 150 | 152 |
| 8786 | 27 | 28 |
| 9320 | 21 | 20 |
| 927 | 18 | 19 |
| 9504 | 16 | 11 |

| FAULKNER HOSPITAL | | |
|---------------------------------|------------|----------------------|
| Category | DHCFP DATA | Hospital Corrections |
| Top 20 Principal E-Codes | | |
| E8798 | 15 | 14 |
| 9309 | 15 | 14 |
| 9361 | 11 | 10 |
| 9426 | 10 | 11 |
| List of 20 DRGs with | | |
| Most Total Discharges | | |
| DRG 89 | 151 | 150 |
| 132 | 151 | 150 |
| 14 | 90 | 89 |
| 182 | 89 | 88 |
| 143 | 79 | 80 |
| MDCs Listed / Rank | | |
| Order Including DRG | | |
| 468-470 | | |
| MDC 5 | 1061 | 1063 |
| 6 | 581 | 582 |
| 1 | 325 | 328 |
| 9 | 274 | 275 |
| 21 | 86 | 87 |
| 13 | 75 | 76 |
| MDCs Listed / Rank | | |
| Order Excluding DRG | | |
| 468-470 | | |
| MDC 5 | 1052 | 1054 |
| 6 | 572 | 573 |
| 19 | 419 | 418 |
| 1 | 317 | 320 |
| 9 | 274 | 275 |
| 21 | 85 | 86 |
| 12 | 73 | 74 |

PART C. HOSPITAL RESPONSES

3. Data Discrepancies and Correction Responses Received from Hospitals

MASSACHUSETTS GENERAL HOSPITAL

Hospital noted that the number of discharges for Diagnostic Related Group #620 is understated. The DHCFP tape indicated a total of 45 discharges, whereas MGH's data reflected 77 total discharges for this DRG.

PART C. HOSPITAL RESPONSES

3. <u>Data Discrepancies and Correction Responses Received from Hospitals</u>

NORTH SHORE MEDICAL CENTER – SALEM HOSPITAL

The hospital informed DHCFP that the fiscal year 1997 data for Salem Hospital is substantially accurate with only an inconsequential difference in the number of discharges.

PART C. HOSPITAL RESPONSES

3. Data Discrepancies and Correction Responses Received from Hospitals

ST. ELIZABETH'S MEDICAL CENTER

The hospital indicated that it was not able to verify either the E-Code listing or the MDC listing. Some discrepancies were found in the DRG counts based on AP Grouper 8.1, The details regarding these discrepancies can be found on the hospital's letter, the text of which follows. Also, the Hospital noted that it could not verify DRG counts for AP Grouper 12.0.

March 10, 1997

In response to your request to verify the St. Elizabeth's Hospital merged case mix/billing data for FY1997 we have validated the data. We found the general statistical data to be consistent with the internal reports generated by the hospital.

The DRG counts based on the AP Grouper Version 12.0 could not be verified, however, we found a number of discrepancies with the DRG counts based on the AP Grouper Version 8.1. Specifically, DRG 629 is 13 lower than our internal reports, DRG 743 is 17 lower than internal reports, DRG 745 is 16 higher than internal reports, DRG 749 is 10 lower than internal reports, and DRGs 750 and 751 are 4 and 5 higher respectively, than internal reports. In addition, DRG 639 does not appear on the verification report while internal reports indicate 6 cases.

As you are aware, it is essential to recognize in any use of this information that it is not correct to make comparisons with similar data in other St. Elizabeth's Hospital reports or with similar data from other hospitals, without first reconciling all data. We appreciate this opportunity to validate these data and to comment on their limitations.

PART C. HOSPITAL RESPONSES

3. <u>Data Discrepancies and Correction Responses Received from Hospitals</u>

WINCHESTER HOSPITAL

The hospital reported that a number of discharges for each of the four quarters were missing as follows:

• Combined Q1 and Q2 (10/1/96 - 3/31/97): 5 patient discharges missing

• Q3 (4/1/97 - 6/30/97): 8 patient discharges missing

• Q4 (7/1/97 - 9/30/97): 9 patient discharges missing

PART C. HOSPITAL RESPONSES 4. Hospitals with Special Circumstances

Baystate Medical Center provided the DHCFP with information relative to specific discharges on its case mix tapes. The discharges that have been "flagged" in the database for Baystate Medical Center are those patients who were discharged from the hospital's <u>licensed</u> long-term care unit. Please note that this unit closed effective February 1, 1997.

The purpose of the "flag" is to alert users of the data that these specific discharges are atypical discharges. Following this page are letters and memos the hospital has provided for inclusion in the documentation. These letter and memos explain why the hospital believes the discharges to be atypical.

Within the database the flags can be found in a field called "**Special Condition Indicator**", located at position number 1925.

Text of Letter Received from Baystate Medical Center – January 28, 1997

November 18, 1997

Mr. Bennett Locke Division of Health Care Finance and Policy Health Data Policy Group Two Boylston Street Boston, MA 02116-4704

Re: Baystate Medical Center's Long Term Care Unit Discharge Data October 1, 1996 through February 1, 1997

Dear Mr. Locke:

In accordance with our agreement, I have enclosed reports which list our Long Term Care Unit discharges for the months of October 1, 1996 through February 1, 1997 along with the following:

- By DRG
- Number of Days
- RSC Discharge Code
- Routine Charges

It is my understanding that a copy of this report will be issued to anyone requesting the discharge data base.

Our Long Term Care Unit was closed effective February 1, 1997.

Sincerely,

Jerry A. Johnson Director – Payment Systems - BHS

BAYSTATE MEDICAL CENTER FY'97 Patients Discharged from Long Term Care Unit (Reported on RSC Tapes in Accommodation Code 209) DRG LTCU Days **RSC Code Routine Charges** 7,714.00 9,678.00 5,278.00 4,466.00 19,422.00 15.30 1,283.90 682.60 1,349.80 406.00 5,293.40 10,581.50 4,060.00 406.00 406.00 5,278.00 1,218.00 1,218.00 406.00 32,589.20 616.70 812.00 1,428.70 1,624.00 4,466.00 1,091,738.80 406.00 434.30 2,030.00 2,464.30 29.90 2,646.70 1,624.00 406.00 4,676.70 19,287.80 5,488.70 1,830.20

1,755.80

9,074.70

BAYSTATE MEDICAL CENTER

FY'97 Patients Discharged from Long Term Care Unit (Reported on RSC Tapes in Accommodation Code 209)

| DRG | RSC Tapes in Accommoda LTCU Days | RSC Code | Routine Charges |
|-----|-----------------------------------|----------|------------------------|
| 203 | 120 | 20 | 50,165.50 |
| 203 | 16 | 20 | 6,737.30 |
| 203 | 9 | 1 | 3,970.90 |
| 203 | 18 | 6 | 14,616.00 |
| 203 | 1 | 20 | 812.00 |
| 203 | 9 | 6 | 7,308.00 |
| 203 | 8 | 6 | 6,496.00 |
| 203 | 6 | 20 | 2,567.80 |
| 203 | 7 | 20 | 2,943.20 |
| 203 | 7 | 6 | 2,842.00 |
| 203 | 2 | 20 | 812.00 |
| | 203 | 20 | 99,270.70 |
| 233 | 5 | 20 | 2,095.90 |
| 239 | 18 | 20 | 10,532.40 |
| 239 | 9 | 20 | 7,308.00 |
| 239 | 14 | 20 | 11,368.00 |
| 239 | 34 | 20 | 6,496.00 |
| | 75 | | 35,704.40 |
| 271 | 3222 | 5 | 1,276,297.10 |
| 278 | 796 | 5 | 576,719.90 |
| 287 | 4300 | 5 | 1,338,081.35 |
| 296 | 1447 | 3 | 663,600.10 |
| 296 | 12 | 3 | 29.30 |
| 296 | 8 | 6 | 15.00 |
| | 1467 | | 663,644.40 |
| 304 | 21 | 20 | 2,842.00 |
| 316 | 24 | 1 | 9,704.40 |
| 316 | 18 | 20 | 7,308.00 |
| | 42 | | 17,012.40 |
| 318 | 6 | 20 | 1,639.30 |
| 347 | 3 | 20 | 1,249.70 |
| 403 | 7 | 20 | 3,461.10 |
| 404 | 6 | 20 | 4,940.90 |
| 414 | 5 | 20 | 2,030.00 |
| 414 | 8 | 3 | 3,248.00 |
| | 13 | | 5,278.00 |
| 429 | 1430 | 3 | 708,139.20 |
| 430 | 51 | 1 | 10,962.00 |
| | 468 | 3019 | 1,113,130.40 |
| 477 | 4989 | 3 | 1,410,948.00 |
| 477 | 2060 | 5 | 842,297.80 |
| | 7049 | | 2,253,245.80 |

| BAYSTATE MEDICAL CENTER | | | | |
|--|------------------------|----------|------------------------|--|
| FY'97 Patients Discharged from Long Term Care Unit | | | | |
| | RSC Tapes in Accommoda | | | |
| DRG | LTCU Days | RSC Code | Routine Charges | |
| 483 | 6118 | 5 | 1,516,177.40 | |
| 483 | 3617 | 3 | 1,239,348.60 | |
| | 9735 | | 2,755,526.00 | |
| 530 | 3625 | 3 | 1,265,808.90 | |
| 531 | 3238 | 3 | 1,318,592.60 | |
| 531 | 3022 | 1 | 1,302,132.30 | |
| | 6260 | | 2,620,724.90 | |
| 533 | 1246 | 3 | 595,327.20 | |
| 541 | 3 | 20 | 2,770.40 | |
| 541 | 13 | 6 | 406.00 | |
| | 16 | | 3,176.40 | |
| 544 | 21 | 20 | 1,834.70 | |
| 557 | 73 | 5 | 35,322.00 | |
| 558 | 39 | 6 | 16,342.30 | |
| 561 | 24 | 20 | 9,744.00 | |
| 567 | 37 | 1 | 10,538.80 | |
| 577 | 1 | 20 | 449.50 | |
| 577 | 1 | 20 | 406.00 | |
| | 2 | | 855.50 | |
| 581 | 85 | 2 | 23,548.00 | |
| 584 | 1341 | 3 | 588,029.40 | |
| 584 | 39 | 20 | 4,872.00 | |
| | 1380 | | 592,901.40 | |
| 705 | 122 | 20 | 37,689.30 | |
| 705 | 8 | 3 | 16.90 | |
| | 130 | | 37,706.20 | |
| 707 | 101 | 20 | 37,377.20 | |
| 708 | 316 | 5 | 137,700.00 | |
| 708 | 175 | 6 | 82,551.90 | |
| 708 | 141 | 1 | 63,736.50 | |
| 708 | 66 | 1 | 26,886.50 | |
| 708 | 19 | 20 | 9,390.80 | |
| 708 | 60 | 5 | 21,112.00 | |
| 708 | 52 | 6 | 28,329.05 | |
| 708 | 33 | 6 | 20,821.20 | |
| 708 | 16 | 20 | 12,483.80 | |
| 708 | 2 | 20 | 1,653.40 | |
| | 880 | | 404,665.15 | |
| 711 | 29 | 6 | 12,180.00 | |

| BAYSTATE MEDICAL CENTER | | | | |
|---|----------------------|----------|------------------------|--|
| | arged from Long Term | | | |
| (Reported on RSC Tapes in Accommodation Code 209) | | | | |
| DRG | LTCU Days | RSC Code | Routine Charges | |
| 714 | 22 | 20 | 3,900.60 | |
| 714 | 3 | 20 | 1,320.90 | |
| 714 | 17 | 6 | 8,092.30 | |
| | 42 | | 13,313.80 | |
| 783 | 1 | 20 | 812.00 | |
| TOTAL | 48,605 | | 17,746,356.40 | |

PART C. HOSPITAL RESPONSES 4. Hospitals with Special Circumstances

Beth Israel Deaconess Medical Center: Users of the database should note that for the first three quarters of FY1997, BIDMC filed separate tapes for Beth Israel Hospital (known as the East Campus, DPH #2069) and separate tapes for Deaconess Hospital (known as the West Campus, DPH # 2092).

Quarter Four was submitted as a merged tape, and included both the East Campus and the West Campus.

Users should take note that the DHCFP does not use hospitals' internal physician numbers a physician identifiers. The Division uses Massachusetts Board of Registration in Medicine physician numbers, which are encrypted to create a Unique Physician Number (UPN). In this way, there should be no collision between the East and West Campus doctors within the merged data.

Please see attached letters from BIDMC dated February 13, 1998 and February 5, 1998, respectively.

BIDMC Letter - February 13, 1998

Enclosed please find a completed FY 1997 case mix verification report for the Beth Israel Deaconess Medical Center. The verification includes data relating only to the East Campus (formerly the Beth Israel Hospital) for quarters 1-3, and combined data for quarter 4.

There are three discharges from quarter 4 that remain unresolved. If they are determined to be valid inpatient discharges the Medical Center will contact the Division to discuss the possibility of resubmitting the quarter 4 tape.

As Ron Cedrone, the Medical Center's Decision Support Manager, has discussed with you, there are a number of points to be considered should the Division proceed with plans to combine the East and West campus data. I am enclosing a copy of Mr. Cedrone's February 5, 1998 letter which identified these issues in detail. The Division should include these points of clarification with any publication or release of Beth Israel Deaconess Medical Center data.

Should you have any questions regarding this response, please feel free to contact me at 617-667-4254 or Ron Cedrone at 617-667-5962.

Sincerely,

Kerry A. Congdon Director of Reimbursement & Analysis

BIDMC Letter - February 5, 1998

I am writing as a follow-up to our recent telephone conversation regarding the intentions of the DHCFP to combine the Beth Israel and New England Deaconess Hospital inpatient Casemix & Charge Data for entire Fiscal Year 1997 under the new merged Beth Israel Deaconess Medical Center. Systems, locations, etc., specific to the former Deaconess and Beth Israel hospitals are now referred to as "West Campus" and "East Campus" respectively.

Listed below are the issues surrounding this merge which you will need to take into account in your analysis and dissemination of the data. These issues revolve around the following two major scenarios:

- The possibility of a "collision" of internal identifiers, whereas the same number (e.g., internal attending physician number) on the two hospital systems refer to two different people. Conversely, the same person may have two different identifiers.
- The possibility of patients transferred between the two campuses during FY97 being reported separately on the Casemix tapes.

Here are the specific issues that need to be considered:

- The Medical Record and Billing numbers are of different lengths on the 2 tapes, so there is no possibility of a collision as long as they continue to be treated as alphanumeric data (i.e., leading zeros are considered part of the number).
- If the same patient had separate admissions to the two campuses they will have different Medical Record Numbers.
- There are cases where the **internal** physician numbers will collide, whereas the same number will refer to two different doctors. Conversely the same doctor will have two different numbers.
- Although operational efforts were made to prevent this, there are cases where a patient transferred between campuses was coded by both medical record departments and reported as two separate discharges on the 2 tapes. Based on a random sampling, we estimate the number of these for the fiscal year to be 15-20. In these cases the discharge, length of stay, and revenue code data are specific to just the stay on the submitting campus. On the aggregate basis for the combined data the length of stay and revenue code unit and charges will total correctly, but the discharge count will be 15-20 higher than the actual count if the combined stay on both campuses is considered a single discharge.

BIDMC Letter - February 5, 1998 - Page Two

As you know, these data issues were caused by the fact that the two campuses had separate operational systems (technical and procedural) for ADT, Scheduling & Registration, Medical Records, and Billing. The first three systems remain separate, while the Billing systems were consolidated for admits as of July 1, 1997. Fortunately, the Billing system is the primary source for the Casemix & Charge data, so beginning with the 1st quarter FY98 there will be just one submission reflecting all discharge activity for the new Medical Center.

However, there will remain an issue if any attempts are made to link internal identifiers (Medical Record and Physician Numbers) across fiscal years (beyond FY96) with the former Deaconess data.

Hopefully, this will clarify what is a bit of a confusing situation. If you have any questions please call me at 617-667-5062.

Sincerely,

Ron Cedrone Decision Support Manager Beth Israel Deaconess Medical Center

PART D. CAUTIONARY USE FILE

PART D. CAUTIONARY USE FILE

This file contains data from those hospitals for which DHCFP does not have four (4) quarters of acceptable data, as specified under Regulation 114.1 CMR 17.00.

The following two hospitals are included in the Cautionary Use File:

Cape Cod Health Systems – Falmouth (DPH ID 2289):

Quarters One and Two passed the edit program. Quarters Three and Four failed.

Please note that Quarters Three and Four failed primarily due to missing and invalid Physician License Numbers (i.e., Board of Registration in Medicine Number).

<u>Vencor – North Shore (DPH ID 2171)</u>:

The tapes submitted by the hospital for Quarters One, Two, and Three could not be read, and therefore were not accepted by the Division. The tape filed for Quarter Four failed.

Quarter Four failed primarily due to missing Physician License Numbers.

*Note: In July 1997, Transitional Hospitals Corporation, located in Peabody, Massachusetts was purchased by Vencor Corporation. The hospital name was changed to Vencor – North Shore.

PART E. HOSPITALS NOT SUBMITTING DATA FOR FY 1997

PART E. HOSPITALS NOT SUBMITTING DATA FOR FY1997

DHCFP is pleased to report that we do not have any information to include in this section of the manual this year. Data was received from all hospitals as required per Regulation 114.1 CMR 17.00.

PART F. SUPPLEMENTARY INFORMATION

Supplement I – Type A Errors & Type B Errors Supplement II – Content of Hospital Verification Report Package Supplement III – Profile: Hospital, Address, DPH Hospital ID Number Supplement IV – Mergers, Name Changes, Closures & Conversions

Supplement I – Type A Errors & Type B Errors

TYPE 'A' ERRORS

Record Type

Submitter Name

Receiver ID

DPH Hospital Computer Number

Type of Batch

Period Starting Date

Period Ending Date

Patient Medical Record Number

Patient Sex

Patient Birth Date

Patient Over 100 Years Old

Admission Date

Discharge Date

Primary Source of Payment

Patient Status

Billing Number

Primary Payor Type

Claim Certificate Number

Secondary Payor Type

Revenue Code

Units of Service

Total Charges (by Revenue Code)

Principal Diagnosis Code

Associate Diagnosis Code (I-IV)

Principal Procedure Code

Significant Procedure Codes (I-II)

Number of ANDs

Physical Record Count

Record Type 2x Count

Record Type 3x Count

Record Type 4x Count

Record Type 5x Count

Total Charges: Special Services Total Charges: Routine Services Total Charges: Accommodations

Total Charges: Ancillaries

Total Charges: All Charges

Number of Discharges

Submitter Employer Identification Number (EIN)

Number of Providers on Tape

Count of Batches

Batch Counts (11, 22, 33, 99)

Supplement I – Type A Errors & Type B Errors - Continued

TYPE B ERRORS

Patient Race

Type of Admission

Source of Admission

Patient Zip Code

Veteran Status

Patient Social Security Number

Birth Weight – Grams

Employer Zip Code

External Cause of Injury Code

Attending Physician Numbers (Hospital's Internal Number and Board of Registration in Medicine No.)

Operating Physician Numbers (Hospital's Internal Number and Board of Registration in Medicine No.)

Date of Principal Procedure

Date of Significant Procedures (I & II)

Supplement II

Contents of Hospital Verification Report Package

- Seven Page Frequency Distribution Report containing the following data elements:
 - Type of Admission
 - Source of Admission
 - Age
 - Sex
 - Race
 - Payor
 - Length of Stay
 - Disposition Status
 - Number of Diagnosis Codes Used per Patient
 - Month of Discharge
 - *DRGs
 - Number of Procedure Codes Used per Patient
 - Accommodation Charge Information
 - Ancillary Charge Information
 - Top 20 Principle E Codes
 - 20 DRGs With Most Total Discharges
 - MDCs Listed in Rank Order Including DRG (468-470)
 - MDCs Listed in Rank Order Excluding DRG (468-470)
- Verification Response Sheet: Completed by hospitals after data verification and returned to the Division of Health Care Finance and Policy.

NOTE: Hospital discharges were grouped with both All-Patient-DRG Groupers, Version 8.1 and Version 12.0. A discharge report showing counts by DRG for both groupers was supplied to hospitals for verification. Any discrepancies are documented in Part C.

Supplement III. Profile: Hospital, Address, DPH ID Number

Anna Jaques Hospital 25 Highland Avenue Newburyport, MA 01950 DPH ID #: 2006

Athol Memorial Center 2033 Main Street Athol, MA 01331 DPH ID #: 2226

AtlantiCare Medical Center 212 Boston Road Lynn, MA 01904 DPH ID #: 2073

Baystate Medical Center, Inc. 759 Chestnut Street Springfield, MA 01199 DPH ID #: 2339

Berkshire Health Systems – Berkshire Medical Center Campus 725 North Street
Pittsfield, MA 01201
DPH ID #: 2313

Berkshire Health Systems - Hillcrest Campus 165 Tor Court Pittsfield, MA 01201 DPH ID #: 2231

Beth Israel Deaconess Medical Center East Campus 330 Brookline Avenue Boston, MA 02215 DPH ID #: 2069

Beth Israel Deaconess Medical Center West Campus One Deaconess Road Boston, MA 02215 DPH ID #: 2092

Boston Medical Center – BCH 88 East Newton Street - Vose Hall 4 Boston, MA 02118 DPH ID #: 2307

Supplement III – Profile: Hospital, Address, DPH Number

Boston Medical Center – University 88 East Newton Street – Vose Hall 4 Boston, MA 02118 DPH ID #: 2084

Boston Regional Medical Center 5 Woodland Road Stoneham, MA 02180 DPH ID #: 2060

Brigham & Women's Hospital 10 Vining Street Boston, MA 02115 DPH ID #: 2921

Brockton Hospital 680 Centre Street Brockton, MA 02402 DPH ID #: 2118

Cambridge Public Health Commission - Somerville Hospital 63 Beacon Street Somerville, MA 02143 DPH ID #: 2001

Cape Cod Health Systems – Cape Cod 27 Park Street Hyannis, MA 02601 DPH ID #: 2135

Cape Cod Health Systems – Falmouth 100 Ter Heun Drive Falmouth, MA 02540 DPH ID #: 2289

Carney Hospital 2100 Dorchester Avenue Boston, MA 02124 DPH ID #: 2003

Children's Medical Center 300 Longwood Avenue Boston, MA 02115 DPH ID #: 2139

Clinton Hospital 201 Highland Street Clinton, MA 01510 DPH ID #: 2126

Supplement III – Profile: Hospital, Address, DPH Number

Columbia MetroWest Medical Center, Inc. 280 Irving Street Framingham, MA 01702 DPH ID #: 2020

Cooley Dickinson Hospital, Inc. 30 Locust Street Northhampton, MA 01061-5001 DPH ID #: 2155

Dana Farber Cancer Institute 44 Binney Street Boston, MA 02115-6084 DPH ID #: 2335

Deaconess-Glover Hospital 148 Chestnut Street Needham, MA 02192 DPH ID #: 2054

Deaconess-Nashoba Hospital 200 Groton Road Ayer, MA 01432 DPH ID #: 2298

Deaconess-Waltham Hospital Hope Avenue Waltham, MA 02254-9116 DPH ID #: 2067

Emerson Hospital P.O. Box 9120 Concord, MA 01742-9120 DPH ID #: 2018

Fairview Hospital 29 Lewis Avenue Great Barrington, MA 01230 DPH ID #: 2052

Faulkner Hospital 1153 Centre Street Boston, MA 02130 DPH ID #: 2048

Franklin Medical Center 164 High Street Greenfield, MA 01301 - DPH ID #: 2120

Supplement III – Profile: Hospital, Address, DPH Number

Good Samaritan Medical Center 235 North Pearl Street Brockton, MA 002401 DPH ID #: 2101

Harrington Memorial Hospital 100 South Street Southbridge, MA 01550-8002 DPH ID #: 2143

Haverhill Municipal Hale Hospital 140 Lincoln Avenue Haverhill, MA 01830 DPH ID #: 2131

Health Alliance Hospital, Inc. – Burbank Campus 275 Nichols Road Fitchburg, MA 01420 DPH ID #: 2034

Health Alliance Hospital, Inc. – Leominster Campus 60 Hospital Road Leominster, MA 01453 DPH ID #: 2127

Heywood Memorial Hospital 242 Green Street Gardner, MA 01440 DPH ID #: 2036

Holy Family Hospital 70 East Street Methuen, MA 01844 DPH ID #: 2225

Holyoke Hospital, Inc. 575 Beech Street Holyoke, MA 01040 DPH ID #: 2145

Hubbard Regional Hospital 340 Thompson Road Webster, MA 01570 DPH ID #: 2157

Supplement III – Profile: Hospital, Address, DPH Number

Jordan Hospital, Inc. 275 Sandwich Street Plymouth, MA 02360 DPH ID #: 2082

Lahey Hitchcock Clinic 41 Mall Road Burlington, MA 01805 DPH ID #: 2033

Lawrence General Hospital One General Street – P.O. Box 189 Lawrence, MA 01842-0389 DPH ID #: 2099

Lawrence Memorial Hospital 170 Governors Avenue Medford, MA 02155 DPH ID #: 2038

Lowell General Hospital 295 Varnum Avenue Lowell, MA 01854 DPH ID #: 2040

Malden Hospital 100 Hospital Road Malden, MA 02148 DPH ID #: 2041

Marlborough Hospital 57 Union Street Marlborough, MA 01752 DPH ID #: 2103

Martha's Vineyard Hospital P.O. Box 1477 Oak Bluffs, MA 02557 DPH ID #: 2042

Mary Lane Hospital 85 South Street Ware, MA 01082 DPH ID #: 2148

Supplement III – Profile: Hospital, Address, DPH Number

Massachusetts Eye & Ear Infirmary 243 Charles Street Boston, MA 02114 DPH ID #: 2167

Massachusetts General Hospital 55 Fruit Street Boston, MA 02114 DPH ID #: 2168

Medical Center at Symmes 39 Hospital Road Arlington, MA 02174 DPH ID #: 2089

Melrose-Wakefield Hospital Corporation - Melrose 585 Lebanon Street Melrose, MA 02176 DPH ID #: 2058

Melrose-Wakefield Hospital Corporation – Whidden 103 Garland Street Everett, MA 02149 DPH ID #: 2046

Memorial Health Care 281 Lincoln Street Worcester, MA 01605 DPH ID #: 2077

Mercy Hospital 271 Carew Street Springfield, MA 01102 DPH ID #: 2149

Milford-Whitinsville Hospital 14 Prospect Street Milford, MA 01757 DPH ID #: 2105

Milton Medical Center 92 Highland Street Milton, MA 02186 DPH ID #: 2227

Morton Hospital & Medical Center 88 Washington Street Taunton, MA 02780 DPH ID #: 2022

Supplement III – Profile: Hospital, Address, DPH Number

Mount Auburn Hospital 330 Mt. Auburn Street Cambridge, MA 02138 DPH ID #: 2071

Nantucket Cottage Hospital 57 Prospect Street Nantucket, MA 02554 - DPH ID #: 2044

New England Baptist Hospital 125 Parker Hill Avenue Boston, MA 02120 DPH ID #: 2059

New England Medical Center 750 Washington Street Boston, MA 02111 DPH ID #: 2299

Newton-Wellesley Hospital 2014 Washington Street Newton, MA 02162 DPH ID #: 2075

Noble Hospital, Inc. 115 West Silver Street Westfield, MA 01086-1634 DPH ID #: 2076

North Adams Regional Hospital Hospital Avenue North Adams, MA 01247 DPH ID #: 2061

Northeast Health Systems 85 Herrick Street Beverly, MA 01915 DPH ID #: 2007

Norwood Hospital 800 Washington Street Norwood, MA 02062 DPH ID #: 2114

Providence Hospital 1233 Main Street Holyoke, MA 01040 DPH ID #: 2150

Supplement III – Profile: Hospital, Address, DPH Number

Quincy Hospital 114 Whitwell Street Quincy, MA 02169 DPH ID #: 2151

Saints Memorial Medical Center Hospital Drive Lowell, MA 01852 DPH ID #: 2063

Salem Hospital 81 Highland Avenue Salem, MA 01970 DPH ID #: 2014

Southcoast Health Systems - Charlton Memorial Hospital Highland Avenue @ New Boston Road Fall River, MA 02720 DPH ID #: 2337

Southcoast Health Systems – St. Luke's Hospital (New Bedford) 101 Page Street New Bedford, MA DPH ID #: 2010

Southcoast Health Systems – Tobey Hospital 101 Page Street New Bedford, MA DPH ID #: 2106

South Shore Hospital, Inc. 55 Fogg Road South Weymouth, MA 02190 DPH ID #: 2107

Southwood Community Hospital 111 Dedham Street Norfolk, MA 02056 DPH ID #: 2856

St. Anne's Hospital 795 Middle Street Fall River, MA 02721 DPH ID #: 2011

St. Elizabeth's Hospital 736 Cambridge Street Boston, MA 02135 - DPH ID #: 2085

<u>Supplement III – Profile: Hospital, Address, DPH Number</u>

St. Vincent Hospital, Inc. 25 Winthrop Street Worcester, MA 01604 DPH ID #: 2128

Sturdy Memorial Hospital 211 Park Avenue Attleboro, MA 02703-0649 DPH ID #: 2100

University of Massachusetts Medical Center 55 Lake Avenue North Worcester, MA 01655 DPH ID #: 2841

Vencor - Boston 1515 Commonwealth Avenue Brighton, MA 02135 DPH ID #: 2091

Vencor – North Shore (Formerly Transitional Hospital Corporation) 15 King Street Peabody, MA 01960 DPH ID #: 2171

Winchester Hospital and Family Medical Center 41 Highland Avenue Winchester, MA 01890 DPH ID #: 2094

Wing Memorial Hospital and Medical Center 40 Wright Street Palmer, MA 01069-1187 DPH ID #: 2181

Supplement IV – Mergers, Name Changes, Closures & Conversions

| | MERGERS | |
|-----------------------------------|-----------------------|----------------|
| Original Entities | New Corporation | Effective Date |
| Lynn Hospital | Atlanticare Medical | 1986 |
| Union Hospital | Center | |
| Berkshire Medical Center | Berkshire Health | July 1996 |
| Hillcrest Hospital | System | |
| Beth Israel Hospital | Beth Israel Deaconess | October 1996 |
| Deaconess Hospital | Medical Center | |
| Boston University Medical Center | Boston Medical | July 1996 |
| Boston City Hospital | Center Corporation | |
| Boston Specialty Rehab | 1 | |
| Boston Hospital for Women | Brigham & Women's | Early 1980's |
| Peter Bent Brigham Hospital | Hospital | |
| Robert Breck Brigham Hospital | • | |
| Cambridge Hospital | Cambridge | July 1996 |
| Somerville Hospital | Community Health | |
| • | Network | |
| Cape Cod Hospital | Cape Cod Health | January 1996 |
| Falmouth Hospital | Systems | |
| Cardinal Cushing General Hospital | Good Samaritan | October 1993 |
| Goddard Memorial Hospital | Medical Center | |
| Burbank Hospital – Fitchburg | Health Alliance, Inc. | November 1994 |
| Leominster Hospital | (Burbank Campus & | |
| • | Leominster Campus) | |
| Lahey Hospital | Lahey Hitchcock | January 1995 |
| Hitchcock Clinic (Lebanon, NH) | Clinic | |
| Holden District Hospital | Medical Center of | October 1989 |
| Worcester Hahnemann Hospital | Central MA | |
| Worcester Memorial Hospital | | |
| Leonard Morse Hospital – Natick | MetroWest Medical | January 1992 |
| Framingham Union Hospital | Center | |
| Norwood Community Hospital | Neponset Valley | 1992 |
| Southwood Hospital | Health Systems | |
| Beverly Hospital | Northeast Health | October 1996 |
| Addison Gilbert Hospital | Systems | |
| Salem Hospital | North Shore Medical | April 1988 |
| North Shore Children's Hospital | Center | _ |
| St. John's Hospital | Saints Memorial | October 1992 |
| St. Joseph's Hospital | Medical Center, Inc. | |
| Charlton Memorial Hospital | Southcoast Health | June 1996 |
| St. Luke's Hospital (New Bedford) | System | |
| Tobey Hospital | • | |
| Melrose Wakefield Hospital | UniCare Health | August 1996 |
| Whidden Memorial Hospital | Systems | |

Supplement IV – Mergers, Name Changes, Closures & Conversions

| NAME CHANGES | | |
|------------------------------------|---------------------------------------|--------------------------|
| | | |
| Original Name | New Name | Comments |
| Doctor's Hospital | AdCare | No longer acute care |
| Lynn Hospital | AtlantiCare Hospital | |
| Boston City/University Hospital | Boston Medical Center | |
| New England Memorial Hospital | Boston Regional Med. Ctr. | |
| Glover Memorial Hospital | Deaconess-Glover | |
| Nashoba Community Hospital | Deaconess-Nashoba Hospital | |
| Waltham/Weston Hospital | Deaconess-Waltham Hospital | |
| Central Hospital | Heritage Hospital | No longer acute care |
| Bon Secours Hospital | Holy Family Hospital | |
| Lahey Clinic Hospital, Inc. | Lahey Hitchcock Clinic | |
| The Med. Ctr. Of Cen. MA, Inc. | Memorial Hospital, Inc. | |
| MetroWest Medical Center, Inc. | Columbia MetroWest Med. Ctr. | |
| Quincy City Hospital | Quincy Hospital | |
| JB Thomas Hospital | Transitional Hospitals Corporation | Long term acute hospital |
| Transitional Hospitals Corp. | Vencor – North Shore | Long term acute hospital |
| Hahnemann Hospital | Vencor, Inc. | Long term acute hospital |

Supplement IV – Mergers, Name Changes, Closures & Conversions

| CLOSURES AND CONVERSIONS | | |
|--------------------------------------|---------------------------------|--|
| | | |
| Amesbury Hospital | Closed | |
| Brookline Hospital | Closed | |
| Fairlawn Hospital | Converted to Non-Acute Hospital | |
| Farren Memorial Hospital | Closed | |
| HCHP Hospital | Closed | |
| Heritage Hospital | Converted to Non-Acute Hospital | |
| Hunt Memorial Hospital | Closed | |
| Ludlow Hospital | Closed | |
| Mary Alley Hospital | Closed | |
| Massachusetts Osteopathic Hospital | Closed | |
| Parkwood Hospital | Closed | |
| Sancta Maria Hospital | Converted to Nursing Home | |
| St. Luke's Hospital in Middleborough | Closed | |
| St. Margaret's Hospital for Women | Closed | |
| Winthrop Hospital | Closed | |
| Worcester City Hospital | Closed | |

Note: Subsequent to closure some hospitals may have re-opened for uses other than an acute hospital, e.g., health care center, rehabilitation hospital.

SECTION II. TECHNICAL DOCUMENTATION

PART A. CALCULATED FIELD DOCUMENTATION

- 1. Age Calculation
- 2. Newborn Age
- 3. Preoperative Days
- 4. Length of Stay (LOS) Routine
- 5. Length of Stay (LOS) Calculation
- 6. Unique Health Information Sequence Number (UHIN)
- 7. Days Between Stays

SECTION II. TECHNICAL DOCUMENTATION

For your information, we have included a page of physical specifications for the data file(s) at the beginning of this manual. Please see the Tape Specifications section.

Technical Documentation included in this section of the manual is as follows:

PART A. CALCULATED FIELD DOCUMENTATION

PART B. DATA FILE CONTENTS SUMMARY

PART C. REVENUE CODE MAPPINGS

PART D. ALPHABETICAL PAYOR TYPE LIST

Physical specifications include items such as tape density and block size, and a description of the file structure.

Record layout gives a description of each field along with the starting and ending positions.

Calculated fields are age, newborn age in weeks, preoperative days, length of stay, UHIN Sequence Number and days between stays. Each description has three parts:

First is a description of any conventions. For example, how are missing values used?

Second is a brief description of how the fields are calculated. This description leaves out some of the detail. However, with the first section it gives a good working knowledge of the field.

Third is a detailed description of how the calculation is performed. This description follows the code very closely.

PART A. CALCULATED FIELD DOCUMENTATION 1. AGE CALCULATION

A) Conventions:

1) Age is calculated if the date of birth and admission date are valid. If either one is invalid, then '999' is placed in this field.

All dates of birth that are greater than the admission date are assumed to be in the previous century, with the exception of newborns. Because some newborns are assigned a day of admission previous to their date of birth it is practical to check the MDC before calculating age.

Any hundred years older flag that would result in a patient being more than 124 is ignored.

Discretion should be used whenever a questionable age assignment is noted. Researchers are advised to consider other data elements (i.e., if the admission type is newborn) in their analysis of this field.

B) Brief Description:

Age is calculated by subtracting the date of birth from the admission date. A 100-years-old flag is used for patients that are over 100 years old. If a patient has been assigned to a newborn DRG than they are assigned an age of zero.

C) Detailed Description:

- 1) If the patient has already had a birthday for the year, their age is calculated by subtracting the year of birth from the year of admission. If not, then the patient's age is the year of admission minus the year of birth, minus one.
- 2) If the result is negative (date of birth is assumed to be in the previous century) then 100 is added to the age.
- 3) If the age is 99 (the admission date is a year before the admission date or less) and the MDC is 15 (the patient is a newborn), then the age is assumed to be zero.
- 4) If the century code is equal to 1 and the age calculated so far is less than 25 then 100 is added to the age.

PART A. CALCULATED FIELD DOCUMENTATION NEWBORN AGE

A) Conventions:

- 1) Newborn age is calculated to the nearest week (the remainder is dropped). Thus, newborns zero to six days old are considered to be zero weeks old.
- 2) Discharges that are not newborns have '99' in this field.

B) Brief Description

Discharges less than one year old have their age calculated by subtracting the date of birth from the admission date. This gives the patient's age in days. This number is divided by seven, the remainder is dropped.

C) Detailed Description

- 1) If a patient is 1 year old or older, the age in weeks is set to '99'.
- 2) If a patient is less than 1 year old then:
 - a. Patients age is calculated in days using the Length of Stay (LOS) routine, described herein.
 - b. Number of days in step 'a' above is divided by seven, and the remainder is dropped.

PART A. CALCULATED FIELD DOCUMENTATION PREOPERATIVE DAYS

A) Conventions:

- 1. A procedure performed on the day of admission will have preoperative days set to zero. One performed on the day after admission will have preoperative days set to 1, etc.
- 2. Preoperative days are set to 0000 when preoperative days are not applicable.

B) Brief Description

Preoperative days are calculated by subtracting the patient's admission date from the surgery date.

C) Detailed Description

- 1. If there is no procedure date, or if the procedure date or admission date is invalid, then preoperative days are set to 0000.
- 2. Otherwise preoperative days are calculated using the Length of Stay (LOS) Routine, as described herein.

PART A. CALCULATED FIELD DOCUMENTATION LENGTH OF STAY (LOS) ROUTINE

A) Conventions

1. None

B) Brief Description

- 1. Length of Stay (LOS) is calculated by subtracting the first date from the second date.
- 2. Days are accumulated a year at a time, until both dates are in the same year. At this point the algorithm may have counted beyond the ending date or may still fall short of it. The difference is added (or subtracted) to give the correct LOS.

C) Detail Description

- 1. Convert the first date to a julian date, but in the same year as the second date. Again, the algorithm will count the number of days, a year at a time, between the two dates. This total is adjusted to the final value by adding the difference between the two dates, but the difference is calculated in the year of the second date. This becomes important when February 29 lies between the two dates.
- 2. The second date is converted to a julian date.
- -- For example:

If the two dates are 03/10/83 and 03/01/84, then 03/10/83 becomes 84070 and 03/01/84 becomes 84061.

3. Initialize LOS to zero

Counting from the first date to the second date in years, add the correct number of days for each year until the year of the second date has been reached.

$$LOS = 0$$
 then,

LOS = 0 + 366 (number of days between 03/10/83 and 03/01/84).

- 4. Using the last three digits of the julian date, subtract the first date from the second date and add the result to the LOS.
- ---- 061 170 = -9 (the negative number indicates that the anniversary of the first date is after the second date).

$$LOS = 366 + -9 = 375$$

PART A. CALCULATED FIELD DOCUMENTATION LENGTH OF STAY (LOS) CALCULATION

A) Conventions

1. Same day discharges have a length of stay of 1 day.

B) Brief Description

1. Length of Stay (LOS) is calculated by subtracting the admission date from the Discharge Date (and then subtracting LOA days). If the result is zero (for same day discharges), then the value is changed to one.

C) Detail Description

- 1. The length of stay is calculated using the LOS routine.
- 2. If the value is zero then it is changed to a 1.

PART A. CALCULATED FIELD DOCUMENTATION

UHIN SEQUENCE NUMBER

A) Conventions

1. If the Unique Health Information Number (UHIN) is undefined (not reported, unknown or invalid), the sequence number is set to zero.

B) Brief Description

1. The Sequence Number is calculated using both the accepted and cautionary use files sorted together by UHIN, admission and discharge date. The sequence number is then calculated by incrementing a counter for each UHIN's set of admissions.

C) Detailed Description

- 1. UHIN Sequence Number is calculated by sorting the entire database (both accepted and cautionary use files) by UHIN, admission date, then discharge date (both dates are sorted in ascending order).
- 2. If the UHIN is undefined (not reported, unknown or invalid), the sequence number is set to zero.
- 3. If the UHIN is valid, the sequence number is calculated by incrementing a counter from 1 to nnnn, where a sequence number of 1 indicates the first admission for the UHIN, and nnnn indicates the last admission for the UHIN.
- 4. If a UHIN has 2 admissions on the SAME day, the discharge date is used as the secondary sort key.
- 5. Because the sequence number is calculated using the entire database rather than calculating the sequence number on the accepted file and then SEPARATELY calculating the sequence number on the cautionary use file, it may be necessary to read BOTH the accepted and cautionary use files in order to get all of a patient's re-admissions. (i.e., a patient is admitted to Somerville Hospital then transferred to Beth Israel. The sequence number is 1 for the first admission at Somerville Hospital and numbered 2 for the second admission at Beth Israel. However, Beth Israel is on the accepted file while Somerville Hospital is on the cautionary file.)

PART A. CALCULATED FIELD DOCUMENTATION DAYS BETWEEN STAYS

A) Conventions

- 1. If the UHIN is undefined (not reported unknown or invalid), the days between stays is set to zero.
- 2. If the previous discharge date is greater than the current admission date or the previous discharge date or current admission date is invalid (i.e., 03/63/95), DAYS BETWEEN STAYS is set to '9999' to indicate an error.

B) Brief Description

The Days Between Stays is calculated using both accepted and cautionary use files sorted together by UHIN, admission date, then discharge date. For UHINs with two or more admissions, the calculation subtracts the previous discharge date from the current admission date to find the Days Between Stays.

C) Detailed Description

- 1. The Days Between Stays data element is calculated by sorting the entire database (both accepted and cautionary use files) by UHIN, admission date, then discharge date (both dates are sorted in ascending order).
- 2. If the UHIN is undefined (not reported, unknown or invalid), the Days Between Stays is set to zero.
- 3. If the UHIN is valid and this is the first occurrence of the UHIN, the discharge date is saved (in the event there is another occurrence of the UHIN). In this case, the Days Between Stays is set to zero.
- 4. If a second occurrence of the UHIN is found, days between stays is calculated by finding the number of days between the previous discharge and the current admission date with the following caveats:
 - a. if the previous discharge date is greater than the current admission date or the previous discharge date or current admission date is invalid (i.e., 03/63/95), DAYS BETWEEN STAYS is set to '9999' to indicate an error.
- 5. Step 4 is repeated, for all subsequent re-admissions, until the UHIN changes.
- 6. The routine, used to calculate Length of Stay, is also used to calculate days between stays.
- 7. If the discharge date on the first admission is the same as the admission date on the first RE-ADMISSION, days between stays is set to zero. This situation occurs for transfer patients as well as women admitted into the hospital with false labor.

PART B. DATA FILE CONTENTS SUMMARY

PART B. DATA FILE CONTENTS SUMMARY

This database is divided into 2 standard labeled IBM files for the following reason. Some of the hospitals have not been able to submit four quarters of acceptable data in time for the release. In an attempt to make it difficult to mistakenly treat hospitals with incomplete data like the other hospitals, we have separated these hospitals into two files. The first file contains hospitals whose data was accepted by the Commission. The second file contains hospitals whose data did not meet regulatory standards.

The first file contains municipal hospitals with a fiscal year beginning on July 1, and non-municipal hospitals which have a fiscal year beginning on October 1. All hospitals on this file contain one years worth of data.

Please note that Beth Israel Deaconess Medical Center data is merged. It consists of data for Beth Israel Hospital (known as the East campus) and for Deaconess Hospital (known as the West Campus) for the fourth quarter of FY1997. For Quarters one, two and three, data for the two NIDMC campuses is not merged and can be found under the respective DPH identification numbers 2069 and 2092 respectively.

For further information please see the General Documentation under Part C, Hospital Responses.

The second file, referred to as the Cautionary Use File, contains data for two hospitals with unacceptable data. These are:

Cape Cod Health Systems – Falmouth (DPH ID 2289):

Quarters One and Two passed the edit program. Quarters Three and Four failed primarily due to missing and invalid Physician License Numbers.

Vencor – North Shore (DPH ID 2171):

The tapes submitted by the hospital for Quarters One, Two, and Three could not be read, and therefore were not accepted by the Division. The tape filed for Quarter Four failed. Quarter Four failed primarily due to missing Physician License Numbers.

PART C. REVENUE CODE MAPPINGS

REVENUE CODE MAPPINGS ANCILLARY SERVICES

Effective January 1, 1994, amendments to Regulation 114.1 CMR 17.00 were adopted which require use of the UB-92 revenue codes. As a result, all ancillary service revenue code subcategories are now mapped to the UB-92 major classification heading for that revenue center. For example, codes 251-259 map to code 250.

For periods ending December 31, 1993 and earlier, the following tables identify how the UB-92 revenue codes are mapped in the case mix database.

250 PHARMACY:

- 250 Pharmacy
- 251 General
- 252 Generic Drugs
- 253 Non-Generic Drugs
- 254 Blood Plasma
- 255 Blood-Other Components
- 256 Experimental Drugs
- 257 Non-Prescription
- 258 IV Solution
- 259 Other

260 IV THERAPY

270 MEDICAL / SURGICAL SUPPLIES:

- 270 General Medical Surgical Supplies
- 272 Sterile Supply
- 273 Take Home Supply
- 274 Prosthetic Devices
- 275 Pace Maker
- 277 Oxygen-Take Home
- 278 Other Implants
- 279 Other Devices
- 290 Durable Medical Equipment
- 291 Rental DME
- 292 Purchase DME
- 299 Other Equipment

300 LABORATORY:

- 300 General Laboratory
- 301 Chemistry
- 302 Immunology
- 303 Renal Patient (Home)
- 304 Non-Routine Dialysis
- 305 Hematology
- 306 Bacteriology & Microbiology
- 307 Urology
- 309 Other Lab
- 310 Lab-Pathological
- 311 Cytology
- 312 Histology
- 314 Biopsy
- 319 Other Path. Lab
- 971 Lab. Professional Fees

320 DIAGNOSITC RADIOLOGY:

- 320 General
- 321 Angiocardiograph
- 324 Chest X-Ray
- 329 Other
- 400/409 Other Imaging Services
- 401 Mammography
- 402 Ultrasound
- 972 Diagnostic Radiology Professional Fees

THERAPEUTIC RADIOLOGY:

- 330 General
- 331 Chemotherapy-Inject
- 332 Chemotherapy-Oral
- 333 Radiation Therapy
- 335 Chemotherapy-IV
- 339 Other
- 973 Therapeutic Radiology Professional Fees

NUCLEAR MEDICINE:

- 340 General
- 341 Diagnostic
- 342 Therapeutic
- 349 Other Nuclear Medicine
- 974 Nuc Med Professional Fees

CAT SCAN:

- 350 General
- 351 Head Scan
- 352 Body Scan
- 359 Other

OPERATING ROOM:

- 360 General
- 361 Minor Surgery
- 362 Organ Transplant (except Kidney)
- 367 Kidney Transplant
- 369 Other
- 975 Operating Room Professional Fees

ANESTHESIOLOGY:

- 370 General
- 374 Acupuncture
- 379 Other
- 963 Anesthesiology Professional Fees (MD)
- 964 Anesthesiology Professional Fees (RN)

BLOOD:

- 380 General
- 381 Packed Red Cells
- 382 Whole Blood
- 389 Other

BLOOD STORAGE, PROCESSING AND ADMINISTATION:

- 390 General
- *** 391 Blood/Administration
- 399 Other

RESPIRATORY THERAPY:

- 410 General
- 412 Inhalation Services
- 413 Hyperbaric Oxygen Therapy
- 419 Other
- 976 Respiratory Therapy Professional Fees

PHYSICAL THERAPY:

420 General

429 Other

977 Physical Therapy Professional Fees

OCCUPATIONAL THERAPY:

430 General

439 Other

978 Occupational Therapy Professional Fees

SPEECH THERAPY:

440 General

449 Other

979 Speech Therapy Professional Fees

EMERGENCY ROOM:

450 General

459 Other

981 Emergency Room Professional Fees

PULMONARY FUNCTION:

460 General

469 Other

AUDIOLOGY:

470 General

471 Diagnostic

472 Treatment

479 Other

CARDIAC CATHETERIZATION:

480 General

481 Cardiac Catheterization Lab

482 Stress Test

489 Other

AMBULANCE:

540 General

541 Supplies

542 Medical Treatment

543 Heart Mobile

544 Oxygen

545 Air Ambulance

549 Other

RECOVERY ROOM:

710 General

719 Other

LABOR AND DELIVERY:

720 General

721 Labor

722 Delivery

723 Circumcision

724 Birthing Center

729 Other

EKG/ECG:

730 General

731 Holter Monitor

739 Other

985 EKG Professional Fees

EEG:

740 General

749 Other

922 Electromyogram

986 EEG Professional Fees

RENAL DIALYSIS:

800 General

801 Inpatient Hemodialysis

802 Inpatient Peritoneal (non CAPD)

805 Training Hemodialysis

806 Training Peritoneal Dialysis

807 Under Arrangement in house

808 Continuous Ambulatory Peritoneal Dialysis Training

809 In Unit Lab-Routine

810 Self Care Dialysis Unit

811 Hemodialysis – self care

812 Peritoneal Dialysis – self care

813 Under Arrangement in house – self care

814 In Unit Lab – self care

880 Miscellaneous Dialysis

881 Ultrafiltration

KIDNEY ACQUISITION:

- 860 General
- 861 Monozygotic Sibling
- 862 Dizygotic Sibling
- 863 Genetic Parent
- 864 Child
- 865 Non-relating living
- 866 Cadaver

PSYCHOLOGY AND PSYCHIATRY:

- 900 General
- 901 Electroshock Treatment
- 902 Milieu Therapy
- 903 Play Therapy
- 909 Other
- 910 Psychology / Psychiatry Services
- 911 Rehabilitation
- 912 Day Care
- 913 Night Care
- 914 Individual Therapy
- 915 Group Therapy
- 916 Family Therapy
- 917 Bio Feedback
- 918 Testing
- 919 Other
- 961 Psychiatric Professional Fees

OTHER:

280 Oncology

*** 490 Ambulatory Surgery

*** 499 Other Ambulatory Surgery

*** 510 Clinic

*** 511 Chronic Pain Center

*** 512 Dental Clinic

*** 519 Other Clinic

530 General Osteopathic Services

531 Osteopathic Therapy

539 Other Osteopathic Therapy

560 Medical Social Services

700 Cast Room - General

709 Cast Room - Other

750/759 Gastro-Intestinal Services

890/899 Other Donor Bank

891 Bone Donor

892 Organ Donor

893 Skin Donor

920/929 Other Diagnostic Services

921 Peripheral Vascular Lab

940/949 Other Therapeutic Services

941 Recreational Therapy

942 Educational Therapy

943 Cardiac Rehabilitation

960 General Professional Fees

962 Ophthalmology

969 Other Professional Therapy

984 Medical Social Services

987 Hospital Visit

988 Consultation

989 Private Duty Nurse

*** Please note:

These revenue centers should be reported only for those patients admitted to the hospital subsequent to surgical day care.

The following ancillary revenue codes (and their related subcategories) are not valid pursuant to Regulation 114.1 CMR 17.00 and are not used for reporting charges on the case mix data tapes. These revenue codes relate either to outpatient services or to non-patient care.

- 500 Outpatient Services
- 520 Free Standing Clinic
- 530 Osteopathic Services
- 550 Skilled Nursing
- 570 Home Health Aid
- 580 Other Visits (Home Health)
- 590 Units of Service (Home Health)
- 600 Oxygen (Home Health)
- 640 Home IV Therapy Services
- 660 Respite Care (HHA only)
- 820 Hemodialysis Outpatient or home
- 830 Peritoneal Dialysis Outpatient or home
- 840 Continuous Ambulatory Peritoneal Dialysis Outpatient or home
- 850 Continuous Cycling Peritoneal Dialysis Outpatient or home
- 860 Reserved for Dialysis (National Assignment)
- 870 Reserved for Dialysis (National Assignment)
- 990 Patient Convenience Items

PART D. ALPHABETICAL PAYOR TYPE LIST

ALPHABETICAL PAYOR TYPE LIST
Source of Payment Alphabetically Listed Within Payor Type
Revised June 27, 1994

| PAYOR TYPE | | SOURCE OF PAYMENT | |
|------------|--------------|-------------------|---|
| Code | Abbreviation | Code | Definition |
| 6 | BCBS | 142 | Blue Cross Indemnity |
| 6 | BCBS | 154 | Other BCBS (Not listed elsewhere) |
| 6 | BCBS | 156 | Out-Of-State BCBS |
| С | BCBS | 2 | Bay State Health Care |
| С | BCBS | 11 | Blue Care Elect |
| С | BCBS | 21 | Commonwealth PPO |
| С | BCBS | 81 | HMO Blue |
| С | BCBS | 3 | Network Blue (Point of Service) |
| С | BCBS-MC | 155 | Other Blue Cross Managed Care (not listed |
| | | | elsewhere) |
| 6 | BCBS* | 136 | BCBS Medex |
| 7 | COM | 51 | Aetna Life Insurance |
| 7 | COM | 52 | Boston Mutual Insurance |
| 7 | COM | 53 | Connecticut General Insurance |
| 7 | COM | 54 | Continental Assurance Insurance |
| 7 | COM | 89 | Great West/NE Care |
| 7 | COM | 55 | Guardian Life Insurance |
| 7 | COM | 56 | Hartford L&A Insurance |
| 7 | COM | 57 | John Hancock Life Insurance |
| 7 | COM | 58 | Liberty Life Insurance |
| 7 | COM | 85 | Liberty Mutual |
| 7 | COM | 59 | Lincoln National Insurance |
| 7 | COM | 60 | Mass Mutual Life Insurance |
| 7 | COM | 61 | Metropolitan Life Insurance |
| 7 | COM | 62 | Mutual of Omaha Insurance |
| 7 | COM | 91 | New England Benefits |
| 7 | COM | 63 | New England Mutual Insurance |
| 7 | COM | 64 | New York Life Insurance |
| 7 | COM | 65 | Paul Revere Life Insurance |
| 7 | COM | 92 | Private Health Care System |
| 7 | COM | 66 | Prudential Insurance |
| 7 | COM | 101 | Quarto Claims |
| 7 | COM | 67 | State Mutual Life Insurance |
| 7 | COM | 94 | Time Insurance Co |
| 7 | COM | 100 | Transport Life Insurance |
| 7 | COM | 68 | Traveler's Insurance |
| 7 | COM | 70 | Union Labor Life Insurance |
| 7 | COM | 102 | Wausau Insurance Company |

| PAYOR TYPE | | SOURG | CE OF PAYMENT |
|------------|--------------|------------|---|
| Code | Abbreviation | Code | Definition |
| D | COM-MC | 29 | CIGNA Health Plan |
| D | COM-MC | 87 | CIGNA PPO |
| D | COM-MC | 82 | John Hancock Preferred |
| D | COM-MC | 76 | Mass Mutual |
| D | COM-MC | 15 | Met-Elect |
| D | COM-MC | 16 | Met-Life Point of Service |
| D | COM-MC | 41 | MetLife Healthcare Network of Mass |
| D | COM-MC | 78 | Phoenix Preferred PPO |
| D | COM-MC | 18 | Pru Network PPO |
| D | COM-MC | 26 | PruCare |
| D | COM-MC | 17 | PruCare Plus (Point of Service) |
| D | COM-MC | 75 | PRUCARE of Mass |
| D | COM-MC | 32 | Travelers Preferred |
| 7 | COM* | 137 | AARP/Prudential |
| 7 | COM* | 138 | Banker's Life and Casualty Insurance |
| 7 | COM* | 139 | Bankers Multiple Line |
| 7 | COM* | 140 | Combined Insurance Company of America |
| 7 | COM* | 141 | Other Medigap (not listed elsewhere) |
| 7 | COM** | 147 | Other Commercial (not listed elsewhere) |
| 9 | FC | 143 | Free Care |
| 5 | GOV | 151 | CHAMPUS |
| 5 | GOV GOV | 144 120 | Other Government Out-of-State Medicaid |
| 8 | HMO | 44 | (Capital Area) Community Health Plan |
| 8 | HMO | 6 | Central Mass. Health Care |
| 8 | HMO | 4 | Fallon Community Health Plan |
| 8 | HMO | 1 | Harvard Community Health Plan |
| 8 | HMO | 20 | HCHP of New England (formerly RIGHA) |
| 8 | HMO | 24 | |
| 8 | | 45 | Health New England, Inc. |
| | HMO | 46 | Health Source New Hampshire |
| 8 | HMO | | HMO Rhode Island |
| 8 | HMO | 40 19 | Kaiser Foundation Matthew Thornton |
| | HMO | | |
| 8 | HMO | 43 | MEDTAC Naighborhood Health Plan |
| 8 | HMO | 47 | Neighborhood Health Plan |
| 8 | HMO* | 5 | Ocean State Physician Plan |
| 8 | HMO* | 148 | Other HMO (not listed elsewhere) |
| 8 | HMO | 8 | Pilgrim Health Care |
| 8 | HMO | 25 | Pioneer Plan |
| 8 | HMO | 7 | Tufts Associated Health Plan |
| 8 | HMO | 9 | United Health Care of New England (Ocean State) |
| 8 | HMO | 48 | US Healthcare |
| 4 | MCD | 103 | Medicaid |

| | | SOUNC | CE OF PAYMENT |
|------|--------------|-------|---|
| Code | Abbreviation | Code | Definition |
| В | MCD-MC | 105 | Medicaid Managed Care-Bay State |
| В | MCD-MC | 107 | Medicaid Managed Care-Capital Area Community Health Plan |
| В | MCD-MC | 106 | Medicaid Managed Care-Central Mass Health Care |
| В | MCD-MC | 108 | Medicaid Managed Care-Fallon Community Health Plan |
| В | MCD-MC | 109 | Medicaid Managed Care-Harvard Community Health Plan |
| В | MCD-MC | 110 | Medicaid Managed Care-Health New England |
| В | MCD-MC | 111 | Medicaid Managed Care-HMO Blue |
| В | MCD-MC | 112 | Medicaid Managed Care-Kaiser Foundation Plan |
| В | MCD-MC | 113 | Medicaid Managed Care-Neighborhood Health Plan |
| В | MCD-MC | 114 | Medicaid Managed Care-Ocean State Physician's Plan |
| В | MCD-MC | 119 | Medicaid Managed Care-Other (not listed elsewhere) |
| В | MCD-MC | 115 | Medicaid Managed Care-Pilgrim Health Care |
| В | MCD-MC | 104 | Medicaid Managed Care-Primary Care Clinician (PCC) |
| В | MCD-MC | 116 | Medicaid Managed Care-Tufts Associated Health Plan |
| В | MCD-MC | 117 | Medicaid Managed Care-US Healthcare |
| В | MCD-MC | 118 | Medicaid-Mental Health Management of America (MHMA) |
| 3 | MCR | 121 | Medicare |
| 3 | MCR | 135 | Out-of-State Medicare |
| F | MCR-MC | 122 | Medicare HMO-Bay State Health for Seniors |
| F | MCR-MC | 124 | Medicare HMO-Central Mass Health Care Central Care |
| F | MCR-MC | 123 | Medicare HMO-Community Health Plan Medicare Plus |
| F | MCR-MC | 131 | Medicare HMO-Enhance (Pilgrim product) |
| F | MCR-MC | 125 | Medicare HMO-Fallon Senior Plan |
| F | MCR-MC | 126 | Medicare HMO-Harvard Community Senior Care |
| F | MCR-MC | 127 | Medicare HMO-Health New England Medicare Wrap |
| F | MCR-MC | 128 | Medicare HMO-HMO Blue for Seniors |
| F | MCR-MC | 129 | Medicare HMO-Kaiser Medicare Plus Plan |
| F | MCR-MC | 132 | Medicare HMO-Matthew Thornton Senior Plan |
| F | MCR-MC | 130 | Medicare HMO-Ocean State Physician Health Plan |
| F | MCR-MC | 134 | Medicare HMO-Other (not listed elsewhere) |
| F | MCR-MC | 133 | Medicare HMO-Tufts Medicare Supplement (TMS) |
| N | NONE | 159 | None (Valid for Secondary Source of |
| | | | Payment |
| О | OTH | 153 | Grant |
| 0 | OTH | 152 | Foundation |
| 0 | OTH** | 150 | Other Non-Managed Care (not listed |
| | | | elsewhere) |

| PAYOR TYPE | | SOURC | CE OF PAYMENT |
|-------------------|--------------|-----------|--|
| Code | Abbreviation | Code | Definition |
| Е | PPO | 71 | ADMAR |
| Е | PPO | 10 | Advantage (Pilgrim product) |
| Е | PPO | 12 | Central Mass Health-Care Central Plus |
| Е | PPO | 13 | Community Health Plan Options |
| Е | PPO | 88 | Freedom Care |
| E | PPO | 14 | Health New England Advantage |
| E | PPO | 90 | Healthsource Preferred (self-funded) |
| E | PPO | 77 | Options for Healthcare PPO |
| Е | PPO PPO** | 79 149 | Pioneer Health Care PPO |
| E E | PPO | 93 | PPO and Other Managed Care (not listed elsewhere) Psychological Health Plan |
| E | PPO | 80 | Tufts Total Health Plan |
| L | RES | 22 | Reserved Field |
| | | 23 | Reserved Field |
| | RES | 27 | |
| | RES | | Reserved Field |
| | RES | 28 | Reserved Field |
| | RES | 30 | Reserved Field |
| | RES | 31 | Reserved Field |
| | RES | 33 | Reserved Field |
| | RES | 34 | Reserved Field |
| | RES | 35 | Reserved Field |
| | RES | 36 | Reserved Field |
| | RES | 37 | Reserved Field |
| | RES | 38 | Reserved Field |
| | RES | 39 | Reserved Field |
| | RES | 42 | Reserved Field |
| | RES | 49 | Reserved Field |
| | RES | 50 | Reserved Field |
| | RES | 69 | Reserved Field |
| | RES | 72 | Reserved Field |
| | RES | 73 | Reserved Field |
| | RES | 74 | Reserved Field |
| | RES | 83 | Reserved Field |
| | RES | 84 | Reserved Field |
| | RES | 86 | Reserved Field |
| | RES | 95 | Reserved Field |
| | RES | 96 | Reserved Field |
| | RES | 97 | Reserved Field |
| | RES | 98 | Reserved Field |
| | RES | 99 | Reserved Field |
| 1 | SP | 145 | Self-Pay |
| NOTES: * Mad: | WOR | 146 | Worker's Compensation |

NOTES: * Medigap is always supplemental to Medicare.
**Please list under specific carrier when possible.